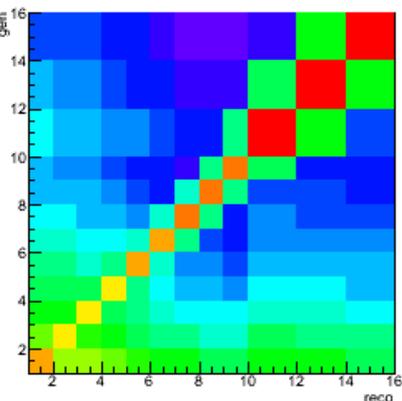


Unfolding : Chi

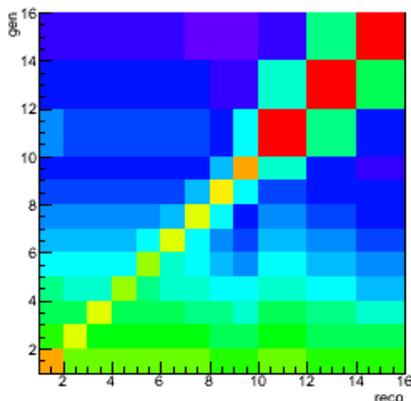
Suvadeep Bose

Response matrix: jec reco vs gen

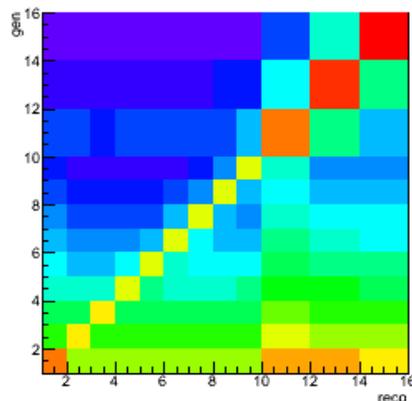
CMS Simulation 12 fb⁻¹ $\sqrt{s} = 8$ TeV



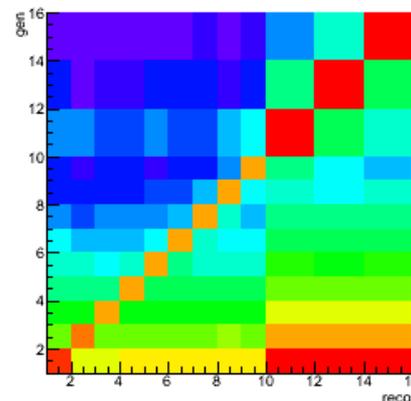
CMS Simulation 12 fb⁻¹ $\sqrt{s} = 8$ TeV



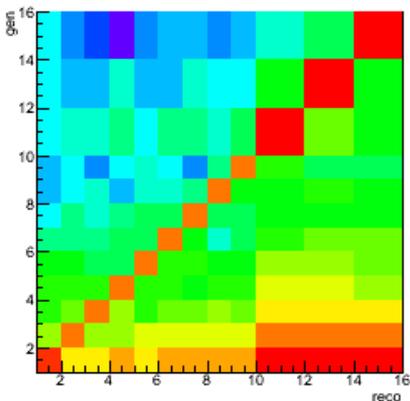
CMS Simulation 12 fb⁻¹ $\sqrt{s} = 8$ TeV



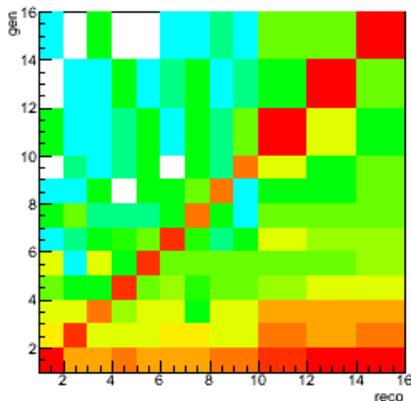
CMS Simulation 12 fb⁻¹ $\sqrt{s} = 8$ TeV



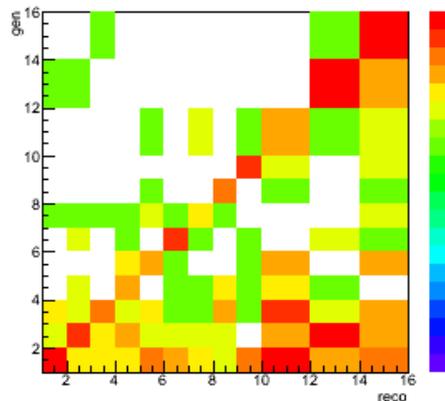
CMS Simulation 12 fb⁻¹ $\sqrt{s} = 8$ TeV



CMS Simulation 12 fb⁻¹ $\sqrt{s} = 8$ TeV



CMS Simulation 12 fb⁻¹ $\sqrt{s} = 8$ TeV

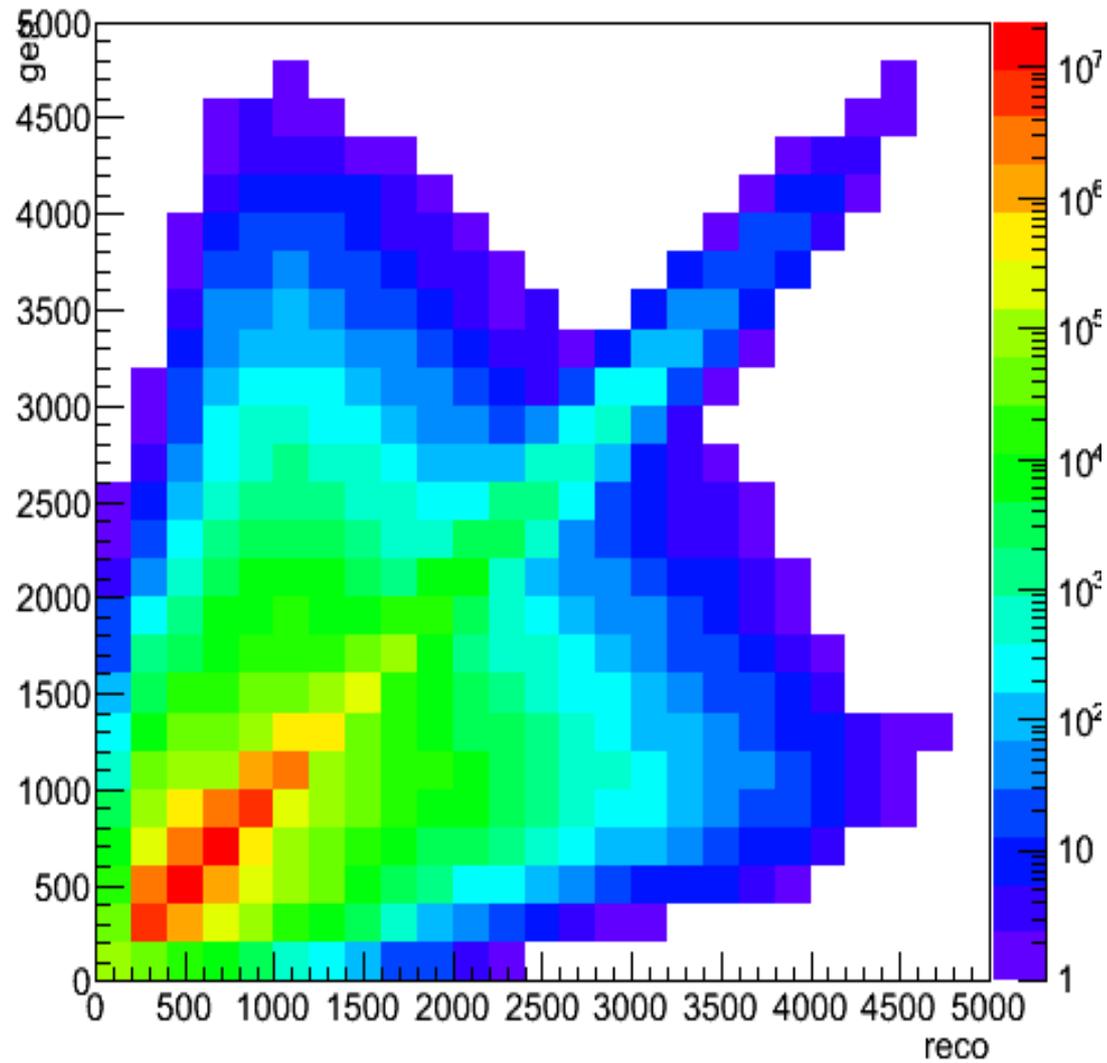


- these are using the official samples which lack in stat for higher mass bins
- now producing toy MC with high stat

Response Matrix: M_{jj}

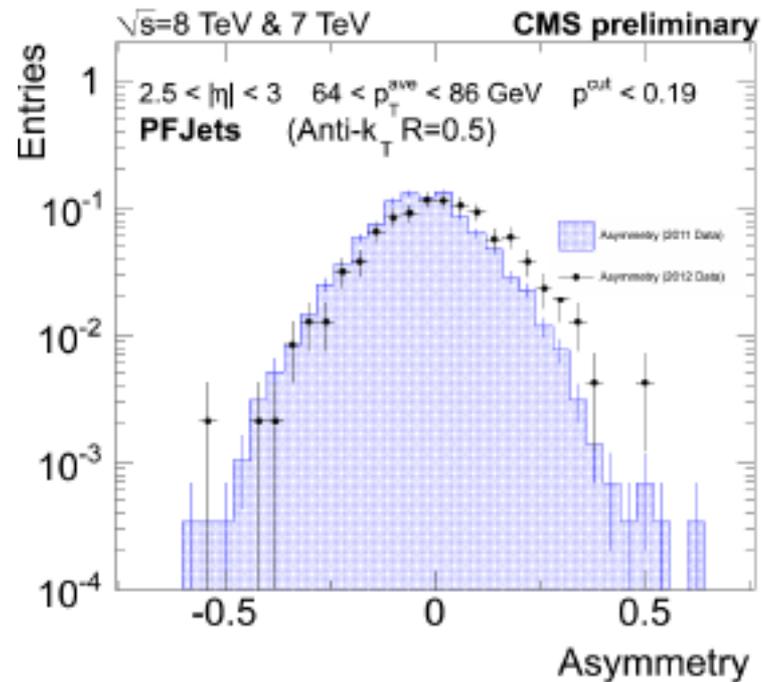
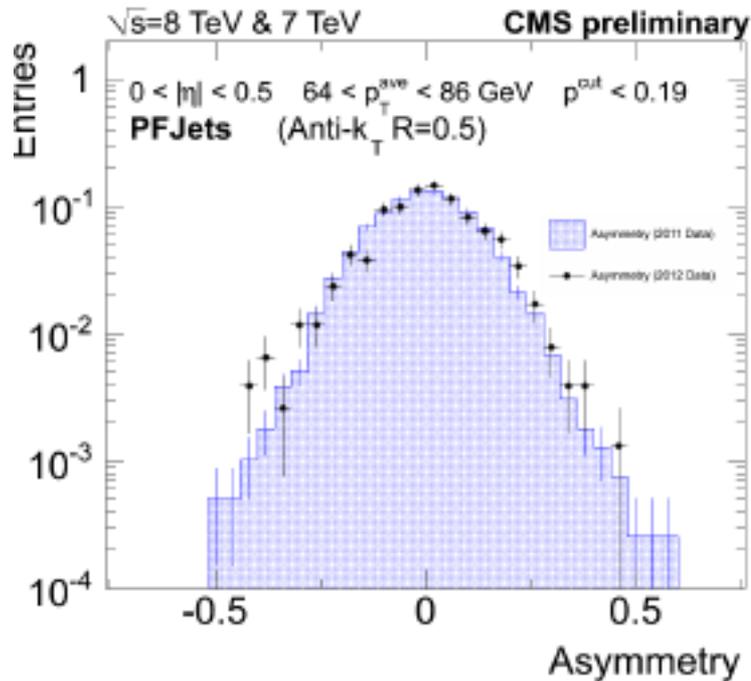
CMS Simulation 12 fb^{-1}

$\sqrt{s} = 8 \text{ TeV}$



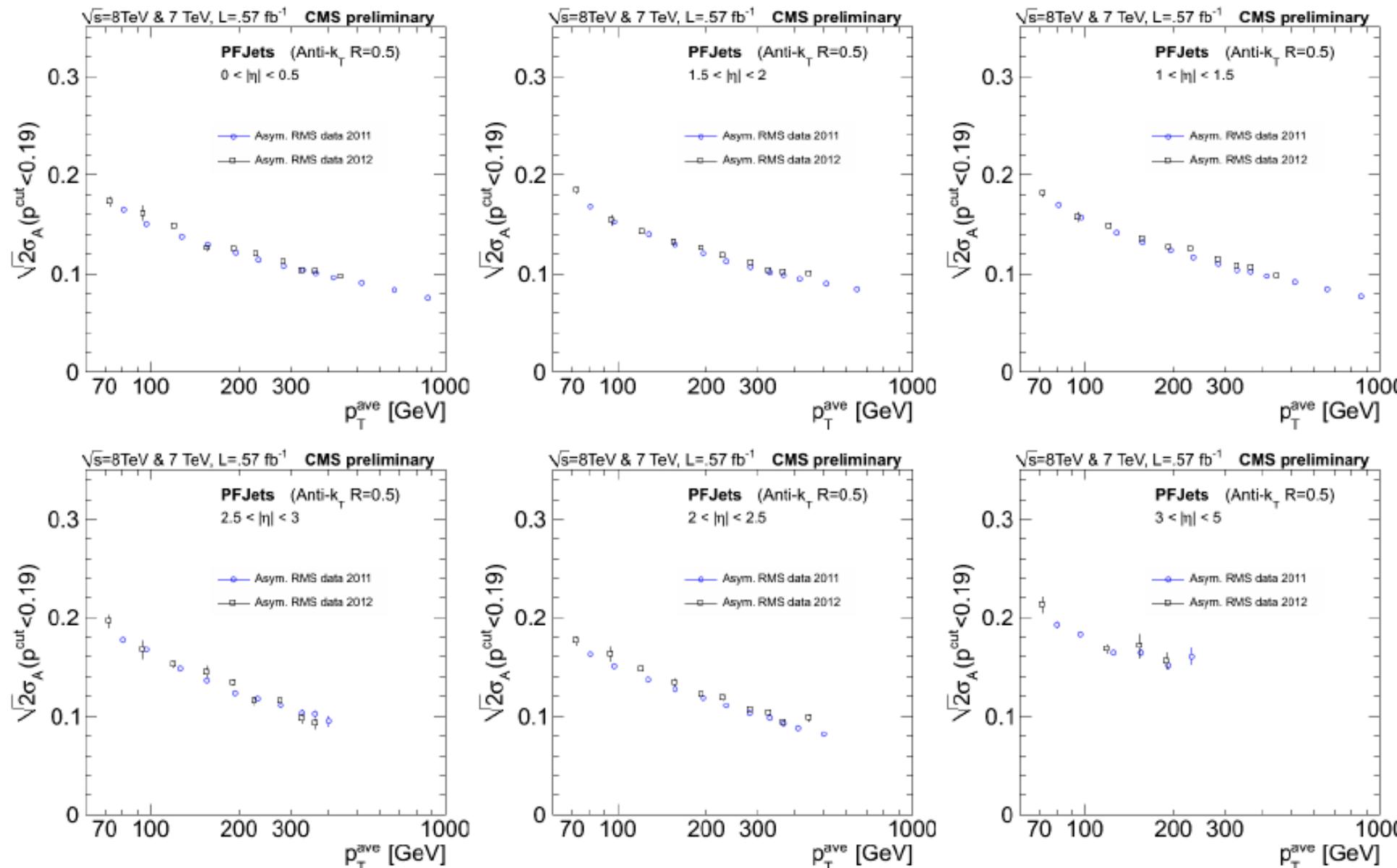
Dijet asymmetry: comparisons

- 8 TeV asymmetry (17 May 2012) – Jet Algo meeting



<https://indico.cern.ch/conferenceDisplay.py?confId=191554>

Asymmetry width



New resolution parameters

- the **new** JER parameters are following

$$\sigma/p_T = \text{sqrt}[(p_0 \cdot p_0) + (p_1 \cdot p_1)/p_T + (p_2 \cdot p_2)/(p_T \cdot p_T)]$$

 eta 	p0	p1	p2	scale factor
0-0.5	2.87265e-02	1.01485	5.25613	1.12
0.5-1.0	3.43555e-02	0.949218	5.92528	1.11
1.0-1.5	3.95103e-02	1.00204e	6.07558	1.11
1.5-2.0	1.42866e-02	0.848049	6.67823	1.22
2.0-2.5	1.34450e-02	0.714309	6.77620	1.23
2.5-3.0	2.08877e-07	0.859187	6.84957	1.10

These are the parameters supplied to me, by **AN-2012/223 (PAS SMP-12-12)** – replacing the official parameters as in:

CondFormats/JetMETObjects/data/Spring10_PtResolution_AK5PF.txt
which used Double sided Crystal Ball

New unsmearing with those parameters